

As shown above, the Fire Chief oversees two Deputy Chief positions and one Administrative Assistant position. One deputy chief oversees fire operations, serves as County Fire Marshal, performs arson investigations, fire training, public education, and logistics. The second deputy chief is responsible for EMS operations, CFAI Accreditation, budget research, SCFR dispatch and communication liaison with Sumter County Sheriff's Office, and department Human Resources. The Administrative Assistant oversees administrative support, including payroll, purchasing, and record management for the department.

In the macro perspective, SCFR is early in its unification of County Fire Departments and as a result is dynamic in organization and structure. New and expanded programs will likely lead to additional modifications of the department organizational structure.

(1) The Sumter County Fire Rescue Has Nearly 100 Reserve Firefighters and Authorized 29 Career Positions (includes support staff).

The following exhibit shows the number of career and reserve personnel for the SCFR:

Position	Career	Reserve
Fire Chief / Director	1.00	
Deputy Chief – Fire Operations Coordinator / Fire Marshal	1.00	
Deputy Fire - EMS Operations Coordinator / Accreditation Manager	1.00	
Administrative Assistant	1.00	
Staff Assistant	2.00	
Fire Inspector / Plans Examiner	1.00	
Shift Commander	3.00	
Station District Chief		4.00
Fire Captain	2.00	
Station (Reserve) Captain		5.00

Position	Career	Reserve
Lieutenant	1.00	
Firefighter / EMT	15.00	
Reserve Firefighter		87.00
Firefighter / Fleet Coordinator	1.00	
Fleet Mechanic		1.00
Logistics Technician		2.00
Total	29.00	99.00

As shown above, there are currently 128 SCFR personnel. Reserve personnel count includes active, non-active fire and support members. The following section describes the SCFR's budgets.

(2) The Sumter County Fire Rescue Has a 2010 Fiscal Year Budget of Approximately \$3.5 Million.

The project team collected information on the revenues and expenditures for SCFR. Appendix J Table A-1 through A-5 shows department operating expenditures for FY 2007, FY 2008, FY 2009, and, FY 2010.

The next set of exhibits show Sumter County 2008 – 2010 Revenue funding for SCFR. The first table is the Operating accounts while the second is Impact Fee collection.

Sumter Fire District - Revenues			
	2008 Actual	2009 Adopted	2010 Adopted
Assessments - Oxville	\$0	\$0	\$50,048
Assessments	\$1,201,326	\$0	\$0
Delinquent	\$26,254	\$8,500	\$8,500
Interim Assessments	\$15,685	\$13,000	\$0
Haz Mitigation - Wind	\$13,945	\$0	\$0
Criminal History Record	\$262,202	\$0	\$0
Firefighter Suppl Comp	\$3,359	\$0	\$6,000
Protective Inspection	\$2,420	\$123,000	\$35,000

Sumter Fire District - Revenues			
	2008 Actual	2009 Adopted	2010 Adopted
Special Fire Prevention	\$4,175	\$0	\$50,756
Fire Response	\$99,106	\$99,133	\$30,000
Interest Earning	\$3,410	\$2,600	\$2,600
Federated Money Market	\$0	\$0	\$200
SBA Interest	\$29	\$100	\$2,000
Interim Assess - Oxville	\$0	\$0	\$604
Assessments	\$0	\$1,661,100	\$1,787,022
Delinquent	\$0	\$0	\$11,400
Interim Assessments	\$0	\$0	\$0
Interim	\$0	\$0	\$32,245
Contributions And	\$100	\$10	\$10
Other Misc Revenue	\$4,896	\$2,250	\$2,500
Refund of Prior Yr	\$12,746	\$10	\$10
Transfer from General	\$2,153,575	\$1,493,473	\$1,493,473
Total	\$3,803,228	\$3,403,176	\$3,512,368

Sumter Fire - Impact Fees			
	2008 Actual	2009 Adopted	2010 Adopted
Fire Rescue Impact Fees	\$183,582	\$240,000	\$400,900
Interest Earnings	\$274	\$0	\$14
Federated Money Mkt	\$1,578	\$0	\$220
SBA Interest	\$832	\$0	\$228
Capital Lease	\$611,757	\$0	\$0
Budgeted Cash Balance	\$0	\$0	\$441,783
Less % of Estimate	\$0	\$12,000	\$0
Total	\$798,023	\$252,000	\$843,145

The following points highlight the information presented in the exhibits on the preceding pages:

- SCFR largest revenue source is Fee Assessments (\$1,787.022) followed by Transfer from General Fund (\$1,493,473).

- Sumter Fire District Revenue increased \$109,192 or 3.11% from FY 2008 Adopted to FY 2010.
- Fire Impact Fee Revenues increased \$591,145 or 70.11% between FY 2008 Adopted and FY 2010.
- Funding for SCFR is derived from Fire Fee Assessments, General Fund and Impact Fees. Assessments contribute the most with 51.46%. Impact Fees contribute the least with 11.32%.

The following exhibits summarize the SCFR adopted budgets by Personnel, Operating, and Equipment / Capital:

Personal Service Accounts						
Expenditure Category / Line Item	2007	2008	2009	2010	2007 - 2010 % Change	Net \$ Increase / Decrease
Class C Per/Diem	\$200	\$500	\$500	\$500	60.00%	\$300
Other Salaries & Wages	\$569,815	\$500,000	\$500,000	\$524,906	-8.56%	(\$44,909)
Overtime	\$47,653	\$75,000	\$54,000	\$50,000	4.69%	\$2,347
Ops Overtime	\$0	\$0	\$0	\$4,000	100.00%	\$4,000
Special Pay	\$0	\$0	\$0	\$60,000	100.00%	\$60,000
FICA Taxes	\$49,895	\$66,046	\$72,323	\$63,160	21.00%	\$13,265
Retirement Contributions	\$97,290	\$154,730	\$172,114	\$167,332	41.86%	\$70,042
Life and Health Insurance	\$125,970	\$162,792	\$192,372	\$185,334	32.03%	\$59,364
Workers Compensation	\$74,866	\$78,292	\$47,016	\$27,616	-171.10%	(\$47,250)
Unemployment Compensation	\$2,500	\$2,500	\$2,500	\$2,500	0.00%	\$0
Total	\$968,189	\$1,039,860	\$1,040,825	\$1,085,348	10.79%	\$117,159

Operating Accounts						
Expenditure Category / Line Item	2007 Adopted	2008 Adopted	2009	2010 Budget	2007 - 2010 % Change	Net \$ Increase / Decrease
Other Contractual Services	0	100	0	0	0.00%	0.00%
Fire Impact Fee Study	0	0	0	0	0.00%	0.00%

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Operating Accounts						
Expenditure Category / Line Item	2007 Adopted	2008 Adopted	2009	2010 Budget	2007 - 2010 % Change	Net \$ Increase / Decrease
Contract Serv Villages	\$21,800	\$14,000	\$46,354	\$51,622	57.77%	\$29,822
Travel & Per Diem	\$17,000	\$10,000	\$10,000	\$10,000	-70.00%	(\$7,000)
Communications Services	\$34,500	\$38,000	\$38,000	\$42,877	19.54%	\$8,377
Postage	\$2,000	\$2,000	\$2,000	\$2,000	0.00%	\$0
Utility Services	\$43,000	\$35,200	\$38,000	\$48,105	10.61%	\$5,105
Rentals & Leases	\$6,000	\$26,000	\$17,200	\$10,604	43.42%	\$4,604
Insurance	\$159,300	\$175,300	\$175,300	\$106,863	-49.07%	(\$52,437)
Repairs & Maint Serv	\$68,817	\$74,355	\$48,905	\$69,621	1.15%	\$804
Repairs & Maint Serv - Vehicles	\$129,000	\$115,302	\$115,302	\$135,000	4.44%	\$6,000
Printing & Binding	\$1,250	\$1,250	\$1,250	\$6,500	80.77%	\$5,250
Promotional Activities	\$3,630	\$3,630	\$3,600	\$12,500	70.96%	\$8,870
Other Current Charges	\$50	\$50	\$0.00	\$2,500	98.00%	\$2,450
Tax Collector's Commission	\$36,000	\$36,000	\$38,225	\$37,198	3.22%	\$1,198
Legal Advertising	\$200	\$190	\$200	\$600	66.67%	\$400
Bank Service Charges	\$0.00	\$0.00	\$2,400	\$2,500	100.00%	2,500.00
Office Supplies	\$10,000	\$12,000	\$8,000	\$8,000	-25.00%	(\$2,000)
Operating Supplies	\$112,125	\$112,125	\$112,095	\$107,835	-3.98%	(\$4,290)
Gas & Oil	\$85,000	\$93,500	\$102,850	\$95,141	10.66%	\$10,141
Books, Subscript, Dues	\$26,915	\$66,000	\$66,301	\$15,750	-70.89%	(\$11,165)
Training	\$0.00	\$0.00	\$0.00	\$75,300	100.00%	\$75,300
Buildings	\$19,592	\$0.00	\$11,480	\$0.00	-100.00%	(\$19,592)
Infrastructure	\$0	\$0.00	\$0	\$2,500	-100.00%	(\$2,500)
Total	\$776,179	\$815,002	\$837,462	\$843,016	7.34%	\$61,837

Equipment / Capital Accounts						
Expenditure Category / Line Item	2007	2008	2009	2010	2007 - 2010 % Change	Net \$ Increase / Decrease
Mach & Eqpt < \$1,000	\$49,905	\$35,368	\$57,304	\$44,971	-10.97%	(\$4,934)
Principal Payment	\$200,000	\$200,000	\$200,000	\$200,000	0.00%	\$0
Interest Payments	\$84,000	\$84,000	\$84,000	\$84,000	0.00%	\$0
Other Debt Svc Costs	\$0.00	\$0.00	\$0.00	\$0.00	0.00%	\$0
Total	\$333,905	\$319,368	\$341,304	\$328,971	-1.50%	(\$4,934)

The following section summarizes the SCFR budget history:

- Over the three (3) year period, the budget remains relatively flat with a total dollar increase of \$176,000.
- Personal Services increased \$117,159 or 10.79% between FY 2007 and FY 2010. The greatest increase in Personal Service was \$70,000 in the Retirement Contributions account line. The largest reduction in dollars was \$47,250 in Workers Compensation.
- Operating Expenses increased \$61,837 or 7.34% over the three (3) year review period. The greatest increase was \$75,300 for Training. The largest decrease was \$52,437 or - 49.07% for insurance.
- Equipment / Capital reflects a -3.03% decrease in budget amounts with a total reduction of \$9,868.
- A significant increase in expenditures occurred in the Equipment greater than \$1,000 which experienced an increase of \$107,410 from FY 2009 to FY 2010.

ISSUES/CONCLUSION

- Fiscal management of the Sumter County Fire Rescue budget is well managed and efficient for the level of services provided when compared to similar fire rescue programs around the State and Nation. Limited career personnel and continued use of reserve personnel will maintain economical budgeting. Variables that affect reserve members ability to respond to emergency calls during evening hours may have significant impacts to department budgeting. Variables that may affect reserve responses include work / family commitment, loss of interest, apathy, and training commitments.

- Continued use of Fire Assessment Fees as the primary revenue sources and Fire Impact Fees are excellent alternatives to ad-valorem dollars by way of fairer distribution of department costs.

RECOMMENDATIONS:

- Department activities should place high priority on retention and recruitment programs for reserve combat personnel.
- Continue to use Fire Assessment Fees as primary revenue source for SCFR.

The following section will discuss SCFR Roles and Responsibilities.

APPENDIX D

Fire Study Population Projections

Fire Study Population Projections 2010 - 2020											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total County	98,200	102,080	105,960	109,840	113,720	117,600	121,960	126,320	130,680	135,040	139,400
Villages Fire District	47,439	50,751	54,063	57,734	60,686	63,998	67,310	67,813	68,316	68,819	69,320
Sumter Fire District	50,761	51,329	51,897	52,106	53,034	53,602	54,650	58,507	62,364	66,221	70,080
City Population											
City of Wildwood	8,709					16,431					27,147
City of Bushnell	2,685					3,123					4,060
City of Webster	890					998					1,237
City of Center Hill	1,046					1,173					1,453
City of Coleman	596					536					483
Inmate Population	9,275	9,275	9,275	9,275	9,275	9,275	9,275	9,275	9,275	9,275	9,275
Net Sumter Fire District	41,486	42,054	42,622	42,831	43,759	44,327	45,375	49,232	53,089	56,946	60,805

Source – Sumter County Planning Department

Total County – University of Florida Bureau of Economic & Business Research Medium Population Projections.

The Villages Fire District – Villages DRI Population based on 1.9 persons/dwelling unit and average rate of growth of 2,100 dwelling units per year.

Sumter Fire District – Total County Population Less Villages Fire District.

City Populations – Wildwood, Bushnell, and Coleman Projections from the cities. Center Hill and Webster projections based on constant share of total county population. City population included in Sumter Fire District Population and Net Sumter Fire District Population.

Inmate Population – Inmate Population at Coleman Federal Correction Complex and Florida State Prison - Held Constant

Net Sumter Fire District - Total County Population Less Villages Fire District Less Inmate Population.

Population Projections for Years 2011 to 2014 and for Years 2016 to 2019 interpolated.

Appendix E

ORGANIZATIONAL ROLES AND RESPONSIBILITIES DISCUSSION

The following table describes the key roles and responsibilities, reporting relationships, and organizational facets of positions within the Fire Department:

Position / Classification	Positions	Key Roles and Responsibilities
Fire Chief / Director	1	<ul style="list-style-type: none"> • Executive management for the Fire Department, including development of policies and procedures, leadership for future services, budget development, identifying service gaps, working with the elected officials and County management. • Coordinates Risk Management issues internal to SCFR. • Provides education regarding how the SCFR operates, what its services are, and resource needs. • Supervise two Deputy Chiefs and one Administrative Assistant.
Deputy Chief – Fire Operations Coordinator / Fire Marshal	1	<ul style="list-style-type: none"> • Responsible for the day-to-day fire operations in SCFR. • Serves as County Fire Marshal. • Oversees the Fire Prevention Bureau. • Develops policies and procedures related to the Fire Operations, Prevention Bureau, and Administrative Services. • Coordinate fire related training and certification activities for all personnel. • Coordinates fire operations issues / workload between the three (3) Shift Commanders. • Oversees the Logistics Section. • Reports directly to the Fire Chief / Director.
Deputy Chief – EMS Operations Coordinator / Accreditation Manager	1	<ul style="list-style-type: none"> • Responsible for overseeing the day-to-day EMS operations in SCFR. • Responsible for implementing an expanded non-transport Advanced Life Support EMS program throughout the SCFR response area. • Fire Accreditation manager for Sumter County Fire Rescue. • Coordinate EMS training and certification activities for all personnel. • Develops policies and procedures related to the EMS Operations, Human Resource, and Administrative Services. • Coordinates EMS Operations issues / workload between the three (3) Shift Commanders. • Coordinates communications and dispatch elements / issues with Sumter County Communication Center. • Reports directly to the Fire Chief / Director.

Position / Classification	Positions	Key Roles and Responsibilities
Administrative Assistant	1	<ul style="list-style-type: none"> Oversees budget and finance activities within department, including Grants and Payroll. Coordinates and distribution of inventory for administrative and operations sections of SCFR. Provides administrative support to the Fire Chief / Directors. Prepares Fire Rescue Advisory Board agenda and minutes of meetings. Reports directly to the Fire Chief / Director.
Staff Assistant – NFIRS (National Fire Incident Report System)	1	<ul style="list-style-type: none"> Serves as SCFR Records Custodian for Fire Incident Reports. Provides administrative support to SCFR. Provides technical support for SCFR Help Desk.
Staff Assistant - Accreditation	1	<ul style="list-style-type: none"> Coordinates Commission on Fire Accreditation International activities Provides administrative support to SCFR. Manages New Hire Application process.
Fire Inspector	1	<ul style="list-style-type: none"> Reviews site/building plans for new construction or renovations to determine compliance with federal, state, and local codes/standards. Conducts on-site inspections on public and private buildings to verify compliance with established standards. Consults with Plan Review staff as needed. Prepares reports regarding the approval or rejection of developments. Issues Certificate of Occupancy, warnings and citations.
Shift Commander	3	<ul style="list-style-type: none"> Serves as shift leader for combination personnel and stations. Responsible for the coordination of daily shift activities. Responds to calls to provide oversight and Incident Command, as necessary. Prepares station staffing schedule and equipment needs on a shift basis. Reports to Deputy Chief - Operations
Station (Reserve) District Chief (Positions re-titled to Station Captain through attrition)	4	<ul style="list-style-type: none"> Serves as station leader for personnel. Responsible for station operation, equipment, reserve staffing. Primary recruitment and retention of SCFR reserve personnel assigned to their respective station. Responds to calls to provide oversight and Incident Command, as necessary. Assists or facilitates weekly station training.

Position / Classification	Positions	Key Roles and Responsibilities
Fire Captain	2	<ul style="list-style-type: none"> Serves as senior Station Officer in one of SCFR eleven stations. Responds on fire apparatus to assigned calls as Company Officer. Assumes command of incident in the absence of the Shift Commander.
Station (Reserve) Captain	5	<ul style="list-style-type: none"> Serves as station leader for personnel in stations without Station District Chiefs. Responsible for station operation, equipment, reserve staffing. Primary recruitment and retention of SCFR reserve personnel assigned to their respective station. Responds to calls to provide oversight and Incident Command, as necessary. Assists or facilitates weekly / monthly station training.
Lieutenant	1	<ul style="list-style-type: none"> Serves as senior Station Officer in one of SCFR eleven stations. Responds on fire apparatus to assigned calls as Company Officer. Assumes command of incident in the absence of the Shift Commander or Captain. Performs fire prevention duties. Performs station and equipment duties.
Firefighter (EMT)	15	<ul style="list-style-type: none"> Assigned to Fire apparatus and responds to emergency calls as dispatched. Performs fire suppression and EMS activities as directed. Performs fire prevention duties. May be certified as either EMT or Paramedic and performs basic life support EMS related duties. Performs station and equipment duties.
Reserve Firefighter	87	<ul style="list-style-type: none"> Assigned to Fire apparatus and responds to emergency calls as dispatched. Performs fire suppression and EMS activities as directed. Receives stipend for services rendered. May be certified as either First Responder, EMT or Paramedic and performs basic life support EMS related duties. Performs station and equipment duties.

Position / Classification	Positions	Key Roles and Responsibilities
Firefighter / Fleet Coordinator	1	<ul style="list-style-type: none"> • Performs preventative and emergency repairs on fire apparatus. • Repairs and performs preventative maintenance on fire pumps. • Coordinates outside repair for SCFR apparatus. • Assigned to Fire apparatus and responds to emergency calls as dispatched. • Performs fire suppression and EMS activities as directed. • Performs fire prevention duties. • May be certified as either EMT or Paramedic and performs basic life support EMS related duties. • Performs station and equipment duties.
Reserve Firefighter/Fleet Mechanic	1	<ul style="list-style-type: none"> • Performs preventative and emergency repairs on fire apparatus. • Repairs and performs preventative maintenance on fire pumps. • Assigned to Fire apparatus and responds to emergency calls as dispatched. • Performs fire suppression and EMS activities as directed. • Receives stipend for services rendered. • May be certified as either First Responder, EMT or Paramedic and performs basic life support EMS related duties. • Performs station and equipment duties.
Logistics Technician (Reserve)	1	<ul style="list-style-type: none"> • Coordinates ordering and delivery of fire and EMS supplies for SCFR stations and apparatus. • Submits purchase request to ensure minimum stock levels of station and apparatus inventory. • Delivers supplies and equipment to SCFR stations.

Fire departments typically operate under one of three models, **Volunteer / Reserve**, where members receive no or minimal amounts of money to respond to emergency calls for service, **Combination**, where members are volunteer / reserve, full time or part time employees and collectively respond to emergency calls, and **Career**, where all members are paid as full or part time employees. SCFR operates a Combination department.

Each fire department model operates under a Para-military structure where the chain of command is practiced in both daily and operational venues.

The National Incident Command System (ICS) is the industry standard for Fire Rescue Operational Span of Control. ICS recommendation for a correct span of control is one leader for groups of three (3) to seven (7) persons operating at an emergency. Many fire rescue programs nationwide have adopted the ICS span of control for the business side as well.

The current organization of SCFR establishes a daily employee to leader ratio of 4:1 for Fire Chief / Director, 4:1 ratio for Deputy Chief – Fire Operations / Fire Marshal, 3:1 ratio for the Deputy Chief – EMS Operations / Accreditation Manager, and 10:1 for the on-duty Shift Commander. However, in volunteer or combination fire department models, span of control based on organizational structure may be misleading. Reserve personnel, by name and design are available on an as-needed basis, typically less than an eight (8) hour day. As a result, administrative span of control is often much larger due to the added responsibilities in daily workloads.

SCFR administration has four (4) managers, Fire Chief / Director, Deputy Chief – Fire Operations / Fire Marshal, Deputy Chief – EMS Operations / Accreditation Manager, and the Administrative Assistant. On the station level, there is additional eight (8) including Shift Commanders, District Chiefs, Captains, and Lieutenants for 105 line personnel. As it was outside the scope of work of this study, the Matrix Consulting Group did not evaluate SCFR department efficiency. Nevertheless, general observation indicates administrative “actual” span of control exceeds ICS standards.

The following points summarize key aspects relating to SCFR roles and responsibilities.

- Total human resource dedicated to SCFR is 127 personnel of which 24 are career personnel and 103 are reserve firefighters.
- SCFR leadership's organizational span of control meets ICS recommendation of one manager for groups of three to five personnel for adequate span of control. In daily practice, span of control ratios are likely much higher than shown on the SCFR Organizational Chart.
- SCFR Shift Commanders and Station District Chiefs exceed ICS standards with an average 15:1 span of control.

ISSUES/CONCLUSION

- SCFR operates a fully intergraded Combination Fire Rescue Department that may cause higher than recommended span of control ratios for both daily business and operational command at emergency incidents.

RECOMMENDATION: A management audit using the National Incident Command Management criteria should be conducted to identify span of control for management and station level officers. If individual officers exceed a seven (7) personnel span of control, consideration should be given to reallocating managerial / supervisory tasks to less senior personnel with ratios of less than 7:1 or to use as future justification for increased supervisory staffing.

Appendix F

FIRE RESCUE OPERATIONS DISCUSSION

Emergency Operations provides twenty-four hour emergency response to fire, rescue, and emergency medical incidents throughout the County from 11 fire stations. This section describes the deployment of personnel and equipment as well as call for service workloads.

1. PERSONNEL AND APPARATUS DEPLOYMENT

Sumter County operates its fire rescue service under a Combination Fire Department model. Under this structure, career and reserve firefighters operate as one in the course of delivery of firefighting and EMS services. Many benefits come from this operating model, especially in the area of budget.

SCFR stations are staffed, as noted above, with career and reserve firefighters. Career firefighters are assigned to either of two shifts schedule, Red or Blue. This schedule allows six (6) SCFR of the department's 11 stations to have staffing between 8-hours to 12-hours each day. Three stations, #11 (Bushnell), #21 (Lake Panasoffkee), and #31 (Wildwood) have career staff working 12-hours per day, seven days per week. The remaining stations are staffed based on a rotating schedule. Reserve personnel respond based on availability. The Shift Commander is the single operational position on a 24-hour basis. As such, coordinates countywide response of career and reserve personnel.

In support of the SCFR reserve force, each career member carries a pager and is encouraged to respond to calls for service when fire stations are not staffed. If a

career person responds while off-duty, the individual is paid at time and one-half for the hours committed to the emergency call.

SCFR's reserve roster reflects 103 reserve firefighters. However, based on 12 – week history of reserve payroll sheets, approximately 30% or 28 people regularly respond when alerted to a call for service. Other reserve members respond irregularly, are non-active, limited in State of Florida certifications, conduct non-combat firefighter business, or willing to participate but personal lives restrict reserve time. A 20% - 30% active participation level for reserve firefighters is often found in fire departments operating under a combination reserve / career staffing model.

The following exhibit shows each station, location, and personnel:

Sumter County Fire Rescue Station Locations / Staffing		
Station	Address	Staffing
Battalion 1		
Station #11 – Bushnell	324 E. Seminole Avenue Bushnell, FL 33513	<ul style="list-style-type: none">• 1 Shift Commander – 24 hours• 1 Captain• 3 Firefighter / EMT• Reserve Firefighters
Station #12 - Webster	71 SE 1st Street Webster, FL 33597	<ul style="list-style-type: none">• 2 Firefighter / EMT (Mon / Tues)• Reserve Firefighters
Station #14 - Center Hill	87 West King's Hwy. Center Hill, FL 33514	<ul style="list-style-type: none">• 2 Firefighter / EMT (Wed / Thurs)• Reserve Firefighters
Station #15 - Sumterville	1405 CR-526A Sumterville, FL 33585	<ul style="list-style-type: none">• 2 Firefighter / EMT (Thurs/Fri)• Reserve Firefighters
Battalion 2		
Station #21 - Lake Panasoffkee	1488 CR-459 Lake Panasoffkee, FL 33538	<ul style="list-style-type: none">• 1 Captain• 3 Firefighter / EMT• Reserve Firefighters
Station #28 - Croom-A-Coochee	12042 CR-684 Webster, FL 33597	<ul style="list-style-type: none">• 2 Firefighter / EMT (Tues / Fri)• Reserve Firefighters
Station #29 - Tri-County	7725 W. CR-476 Bushnell, FL 33513	<ul style="list-style-type: none">• 2 Firefighter / EMT (Mon / Wed)• Reserve Firefighters

Battalion 3		
Station #31 - Wildwood	227 Hall St. Wildwood, FL 34785	<ul style="list-style-type: none"> • 1 Lieutenant • 3 Firefighter / EMT • Reserve Firefighters
Station #32 - Oxford	4147 CR-466 Oxford, FL 34484	<ul style="list-style-type: none"> • 2 Firefighter / EMT (Wed) • Reserve Firefighters
Station #33 - Coleman	3290 CR-521 Wildwood, FL 34785	<ul style="list-style-type: none"> • 2 Firefighter / EMT (Mon / Tue) • Reserve Firefighters
Station #34 - Royal	9641 CR-235 Royal, FL 34785	<ul style="list-style-type: none"> • 2 Firefighter / EMT (Thurs / Fri) • Reserve Firefighters

The following points summarize key aspects relating to station locations and staffing:

- Deployment of SCFR career personnel allows staffing for at least six (6) fire stations each day.
- Three (3) fire stations, #11 (Bushnell), #21 (Lake Panasoffkee), and #31 (Wildwood) are staffed seven-days a week for 12-hours. SCFR's other stations have career staffing at least once each week for 8 or 9 hours.
- SCFR operates from eleven (11) stations subdivided into three geographical Battalions.
- Assignment of career personnel is determined by the number of calls originating from a fire station and the physical location of the station to respond to surrounding zones.

The following exhibit shows how each station is staffed, by hour of day and day of week, with career firefighters:

Career Staffing by Hour and Day								
Station	Hours	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Shift Commander (Bushnell Station #11)	7am – 7am	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs	24 hrs
Station #11 (Bushnell)	7am – 7pm	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs

Career Staffing by Hour and Day								
Station	Hours	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Station #12 (Webster)	8am – 5pm 9am – 5pm	9 hrs	8 hrs					
Station #14 (Center Hill)	9pm – 5pm			8 hrs	8 hrs			
Station #15 (Sumterville)	9pm – 6pm				9 hrs	9 hrs		
Station #21 (Lake Panasoffkee)	7pm – 7pm	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs
Station #28 (Croom-A-Coochee)	8am – 5pm 9am – 6pm		8 hrs			9 hrs		
Station #29 (Tri-County)	9pm – 5pm	8 hrs		8 hrs				
Station #31 (Wildwood)	7pm – 7pm	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs	12 hrs
Station #32 (Oxford)	9pm – 5pm			8 hrs				
Station #33 (Coleman)	9pm – 5pm	8 hrs	8 hrs					
Station #34 (Royal)	9pm – 5pm				9 hrs	9 hrs		

As shown above, each station has career staffing a minimum of once each week. When a station is career staffed is based on workload and / or demand. An example of assigning career firefighters on workload is Station #12 (Webster) where a regional flea market and cattle auction are held each Monday and Tuesday, respectively.

The next section will discuss firefighter station staffing for career personnel.

2. CAREER FIREFIGHTER STAFFING AND SCHEDULE

The Fire Department's 12 – hour shift personnel (career) work a 42-hour average workweek. This schedule is met using a rotation of 2-on, 2-off, 3-on, 2-off, 2-on, and 3-off day schedule.

The table, below, shows the rotation of days off and days worked:

Sumter County Fire Rescue Fire Rescue Operations 12 – Hour Firefighter Shift Schedule														
Platoon	Day of Week													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Red	X	X			X	X	X			X	X			
Blue			X	X				X	X			X	X	X

As shown above, each platoon works seven (7) shifts in a 14-day cycle for an average 42-hour workweek.

ISSUES/CONCLUSION:

- SCFR leadership uses creative scheduling to maximize fire station coverage to ensure career personnel visit each fire station at least once per week. This practice places emergency personnel in local fire stations based on probability of calls for service and to make certain, at minimum, weekly checks of fire apparatus and equipment are conducted.
- SCFR Reserve membership lists show 103 reserve firefighters, of which approximately 30% or 28 individuals respond on a regular basis. The other reserve firefighters respond as their availability allows, considered non-active, or perform non-combat administrative tasks. An active roster of 30% is slightly better than found in many combination fire departments where a 20% - 30% active roster is typical. However, in growing counties, such as Sumter, increased population will place even greater demands on the availability of reserve members and heavier dependence on career firefighter forces. As an example, review of the January 2010 Station Responses (after career staffing left for the day) found two stations; #14 and #21 had no reserve response for the 31-day period. In their place, off-duty career personnel responded at time and one-half pay.
- Retention and recruitment efforts for SCFR Reservist require high priority to increase active and long-term involvement. Many combination fire departments begin with heavy reserve membership and few career personnel. Over time, reserve firefighters respond to calls for service less due to personal & family commitments, work, or social schedules and greater dependence falls on career members. Typically, a department begins to see trends with smaller numbers of reserves responding at night, especially during the workweek. General observation, along with January 2010 station responses, indicates this trend may

be starting in Sumter County. It should be noted, some residents might view this trend as an attempt to rid the department of reserve forces. This is not an accurate statement. Economic environments and changes to minimal certifications to participate in fire suppression activities, especially in growing rural counties have changed where many citizens that have in the past served, or want to serve their community as a reserve firefighter are no longer able to commit the required time.

- Career firefighter staffing is limited to daytime hours with a maximum of 12-hours seven days per week. Modifying this schedule to a 24-hour shift with the current allocation of career firefighters will greatly enhance the department's ability for timely response of emergency personnel and equipment to calls for service.

RECOMMENDATION:

- The department should continue aggressive reserve recruitment and retention to grow reserve response participation.
- To assure timely response of emergency units and enhanced utilization of career personnel, strong consideration should be given to 24-hour staffing at Station #11 (Bushnell), Station #21 (Lake Panasoffkee), and Station 31 (Wildwood). Supervisory span of control at the station level should be addressed when staffing fire stations to include one career Fire Captain per shift and one Fire Lieutenant at each of the other two fire stations.

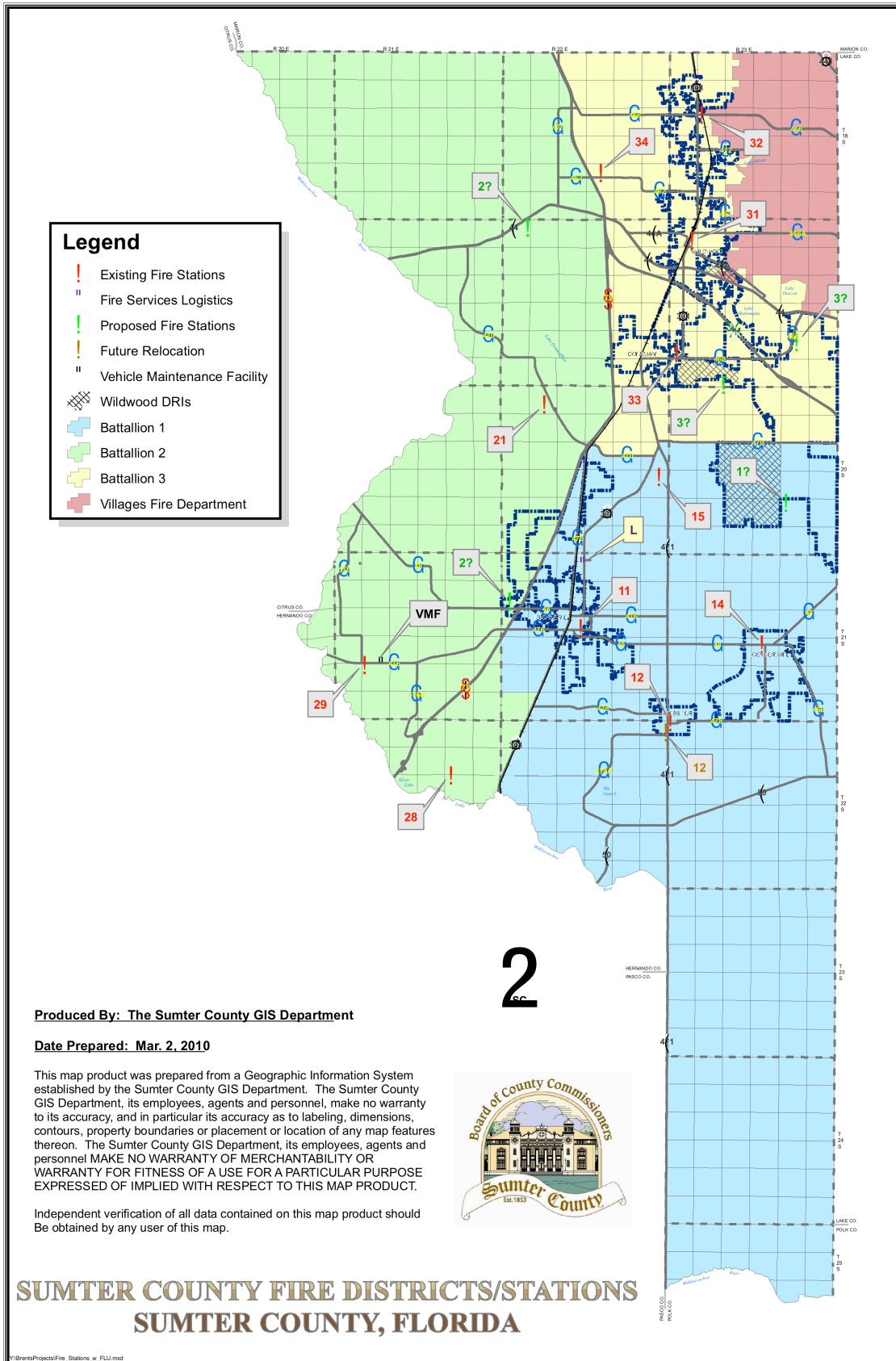
The next section will discuss fire station locations and response maps.

Appendix G

FIRE STATION LOCATIONS, RESPONSE TIMES (Dispatch, Reaction, and Drive time) AND WORKLOAD DISCUSSION

Matrix Consulting Group uses the latest GIS technology in producing maps to show current fire station locations and response time potentials. Maps are based on local streets and highway infrastructure data provided by Sumter County Information Technology Department (SCITD). The first map, produced by SCITD, shows current and SCFR proposed fire station locations.

SUMTER COUNTY, FLORIDA
Fire Rescue Strategic Planning



Fire Rescue response times are calculated on three primary elements, *Processing Time* (Communication Center answers 911 call, enters information into the dispatch computers and “alerts” the appropriate fire station), *Reaction Time* (period of time emergency responders receive the alert to the time emergency units actually respond to the emergency) and *Drive Time* (travel to the reported emergency to arrival of fire rescue personnel). The proceeding sections discuss each element and current times and scenario maps illustrate drive time thresholds from current and proposed stations.

1. EMERGENCY CALL PROCESSING TIME PERFORMANCE

Sumter County Sheriff’s Office (SCSO) provides dispatch services to SCFR. SCSO is the primary 911 Public Safety Answering Point (PSAP) for Sumter County.

The Communications Center is staffed around the clock with a minimum of four Telecommunicators (Dispatchers). Between 9:30 AM and 9:30 PM, one additional Telecommunicator is schedule to serve as a floater. This position will also be used in the event there is a vacancy to maintain the four-telecommunicator schedule minimum. Telecommunicator assignments include one call-taker position, two law enforcement positions, and one dedicated fire rescue position.

SCSO Communication Center uses a Computer Aided Dispatch System (CAD). CAD software utilized in the Center is Data Pursuit, software developed by Bay County Sheriff’s Office. Data Pursuit CAD software was built to operate within a law enforcement environment where (police) resources are actively patrolling the communities. Dispatch of law enforcement resources is typically single unit, which do not require “alert” by pager. Processing of fire rescue incidents require additional steps – particularly when volunteers are involved.

When a person calls 911 in Sumter County, the call-taker enters incident information into the CAD software. Once a minimum amount of basic or primary information is entered into the system, CAD evaluates and recommends which unit(s) responds. At this point, pertinent information is electronically sent to computers monitored by telecommunicators for dispatch of the call. Depending on the emergency need (police or fire) the appropriate telecommunicator dispatches the recommended emergency units. CAD automatically time stamps responding units as being “alerted” to the emergency request. In the case of law enforcement, the Communications Center provides the patrolling zone deputy with information given by the 911 caller(s) and the deputy responds to the call for service. Other deputies will respond based on need and availability.

SCFR resources typically answer a call for service from fire stations, home, or work that requires a different notification process by the Communication Center. SCSO Communication Center’s procedure to notify fire rescue units is listed below:

- Fire Telecommunicator announces over the radio frequency the station number and type of call.
- Station(s) / unit(s) are paged with the telecommunicator providing a verbal announcement of which station or unit is being alerted and call-type. Stations / units are toned a second time, along with the announcement.
- Depending on the type of incident, multiple stations / units are notified, each with individual alert tones.
- Telecommunicator awaits acknowledgment from alerted stations / units. If nothing is heard within two-minutes, the station and unit is alerted again along with the next closest fire station.
- The first fire unit to advise Communications they are “responding” is the time stamp for ‘enroute’ time.

The process of gathering information from the 911 caller, entering information into CAD, automated processing of information to identify which stations / unit to alert, manual alerting of stations and awaiting acknowledgement for the first unit to respond may take multiple minutes.

As noted earlier, SCFR is a fire rescue department that depends heavily on reserve forces and less heavily on career personnel to staff its apparatus. The National Fire Protection Association (NFPA) has unique objectives for volunteer and combination fire departments entitled: “NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by **Volunteer Fire Departments**, 2004 Edition”. NFPA 1720 does not include time durations to measure processing 911 information, reaction time, and drive time to fire and medical emergencies. However, NFPA 1720 creates **total** response time objectives for fire suppression. Total response time objectives under NFPA 1720 follow:

- **Urban Zones** with great than 1,000 people / sq. mi. call for an attack in 9 minutes, 90% of the time.
- **Suburban Zones** with 500-1,000 people / sq. mi. call for an attack in 10 minutes, 80% of the time.
- **Rural Zones** with less than 500 people / sq. mi. call for an attack in 14 minutes, 80% of the time.
- **Remote Zones** with a travel distance greater than 8 miles **once on-scene** call for an attack in 2 minutes, 90% of the time.

The majority of Sumter County falls into either the Rural or Remote categories with an average of 132 people per square mile. Nevertheless, the majority of calls for

services for SCFR are located in and around the municipalities or Suburban response zones. This fact, along with the knowledge three SCFR stations are career staffed 50% of the time and “average” response times are used and not fractile (fractile measure refers to how often a particular objective or benchmark is achieved), the analysis to measure efficiencies of response time, NFPA 1710: Objective for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by **Career Fire Departments** was used.

Recommendations in NFPA 1710 include time elements durations for processing 911 information, reaction time, and drive time to fire and medical emergencies. This criterion is often used by career and combination departments to measure overall response times to calls for service and the effectiveness for Communication Centers. NFPA 1710 response time objectives include the following:

- “One minute (60 seconds) for the processing of an incoming emergency phone call, including the completion of the dispatching of fire response units.”
- “One minute (60 seconds) for turnout time.” This is also called reflex time, reaction time, “out-the-chute” time, etc. This is the time that elapses between dispatch and when the units are actively responding.
- “Four minutes (240 seconds) or less for the arrival of the first arriving engine company at a fire suppression incident and / or 8 minutes (480 seconds) or less for the deployment of a full first-alarm assignment at a fire suppression incident.”
- “Four minutes (240 seconds) or less for the arrival of a unit with first responder or higher level capability at an emergency medical incident.”
- “Eight minutes (480 seconds) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.”

Recognized as a Best Management Practice, NFPA provides standards for community wide fire rescue response times. For comparison purposes, dispatch processing time variance between NFPA 1710 (60-seconds) and SCSO dispatch of fire rescue units is apparent as shown in the following table.

SCSO Communication Center Fire Processing Time							
Dispatch Processing	2006	%	2007	%	2008	%	Avg
60 Sec or less	2865	37%	3106	38%	3223	41%	38.58%
120 Sec or less	5312	69%	5646	69%	5715	73%	69.97%
180 Sec or less	6536	84%	6970	85%	6842	87%	85.39%
240 Sec or less	7118	92%	7566	92%	7364	94%	92.52%
300 Sec or more	621	8%	663	8%	500	6%	7.48%
Total Calls*	7739	100%	8229	100%	7864	100%	

* Does not include calls with negative response time, missing time stamps, or greater than 30 minutes)

As shown above, SCSO fails to meet Best Management Practices for Call Processing time of 60–seconds. Over a three-year period, SCSO met the Best Management Practice on 38.58% of fire rescue incidents. The Communication Centers highest percent of call processing time is four minutes at 92.52%. As noted earlier, Sheriff's Office CAD software automatically time stamps fire units as 'alerted' to an emergency call for service when the call taker electronically transfers the detailed information to the fire telecommunicator. In reality, the stamp for fire unit 'alert-time' occurs before units are actually notified (paged) of an emergency. As a result, true dispatch processing time is likely longer than indicated in the preceding table.

During a ride-along with the Shift Commander, a review team member observed, via real-time computerized dispatch logs, calls for service requiring fire rescue waiting to be dispatched. SCFR was not alerted to the majority of these calls for five (5) and seven (7) minutes *after* being accepted into the Communication Center's CAD software

for dispatching of SCFR. Calls for service relating to auto crashes, including two events on I-75 were held until a SCSO deputy arrived on-scene to determine a need for the fire department.

Questioning of the on-duty shift commander during the observed events, along with other shift personnel and administrative staff indicates this was not an isolated incident. The prevalent belief among SCFR members is significant delays occur regularly between SCSO Communication Center receiving a 911 call for fire rescue service and actually alerting of SCFR stations. CAD delays for fire rescue go unnoticed because of the functionality of CAD software where actual dispatch of SCFR units is different from the alert time stamp.

The SCSO Communication Center recognizes occasional delays alerting fire rescue may occur, but not because of calls being held. According to Communication Center management, some fire rescue related events take longer to process based on information being gathered from the caller. Even though the call-taker has accepted the basic information into CAD and the software has transferred this information to the telecommunicators, the fire rescue telecommunicator still lacks pertinent information for alerting fire personnel. However, law enforcement is able to respond with the basic information and as a result is notified sooner. Other reasons there may be sporadic delays in alerting SCFR include the telecommunicator assigned to fire rescue may be functioning as an 'overflow' call-taker at that particular moment and unable to break-away, or the telecommunicator is already in the process of alerting emergency units of another call.

2. REFLEX TIME PERFORMANCE

Included in NFPA 1710 is turnout or reflex time for career departments. This is the period for firefighters to receive notification of an emergency and respond to the incident. Best Management Practice is 60-seconds for reaction time for career departments. NFPA recognizes in 1720, volunteer and combination departments will have longer turnout times.

Sumter County Fire Rescue Reflex Time							
Reflex Time	2006	%	2007	%	2008	%	Avg
Less than 1 Min	2,692	35%	2,415	29%	2,208	28%	30.72%
Less than 2 Min	4,227	55%	4,190	51%	3,934	50%	51.82%
Less than 3 Mins	5,835	75%	6,331	77%	6,051	77%	76.38%
Less than 4 Mins	6,303	81%	6,792	82%	6,453	82%	81.96%
Less than 5 Mins	6,697	86%	7,230	88%	6,836	87%	87.05%
5 Mins or more	1,049	14%	1,003	12%	1,032	13%	12.95%
Total Calls*	7,746	100%	8,233	100%	7,868	100%	

* Does not include calls with negative response time, missing time stamps, or greater than 30 minutes)

As demonstrated in the above table, SCFR fails to meet NFPA 1710 standards for reflex time of 60-seconds on 69.28% or over 16,500 calls that occurred between January 1, 2006 and December 31, 2008. County reflex time is greatest at five-minute or less with 87.05%. With a volunteer staffing component, combination departments have inherently higher reflex time over career departments.

3. DRIVE TIME PERFORMANCE

Drive time is the period where firefighters respond in apparatus to the emergency. Drive time begins when the Communication Center is notified the unit is responding and ends when the unit arrives at the emergency.

The following table provides total fire rescue incidents with the percentage of calls for service:

36-Month Calls for Service – Current Stations Drive Time Thresholds						
	Total Incidents	Percent of Total	Total Incidents	Percent of Total	Total Incidents	Percent of Total
Drive Time	2006	%	2007	%	2008	%
4 Mins or less	4,395	57%	4,482	54%	4,120	52%
5 Mins or less	5,068	65%	5,206	63%	4,770	61%
6 Mins or less	5,634	73%	5,840	71%	5,391	69%
7 Mins or less	6,111	79%	6,411	78%	5,951	76%
8 Mins or less	6,465	83%	6,843	83%	6,392	81%
More than 8 Mins	1,219	16%	1,389	17%	1,475	19%
Total Calls*	7,746	100%	8,233	100%	7,868	100%

* Does not include calls with negative response time, missing time stamps, or > than 30 minutes)

SCFR fails to meet NFPA career department standards for drive time of four-minutes or less with 52% of calls occurring between January 1, 2006 and December 31, 2008 falling in that category. The highest percentage for drive time occurred at eight minutes or less with 81% of calls meeting that objective.

The following points summarize key aspects relating to SCFR call for service data for the period between January 1, 2006 and December 31, 2008.

- SCFR reached the emergency incident within the four-minute drive time threshold on 58% of calls.
- Drive time threshold of six minutes were met on 78% of calls.
- Calls for service with an eight-minute drive time occurred on 86% of incidents over the 36-month period.

ISSUES/CONCLUSION

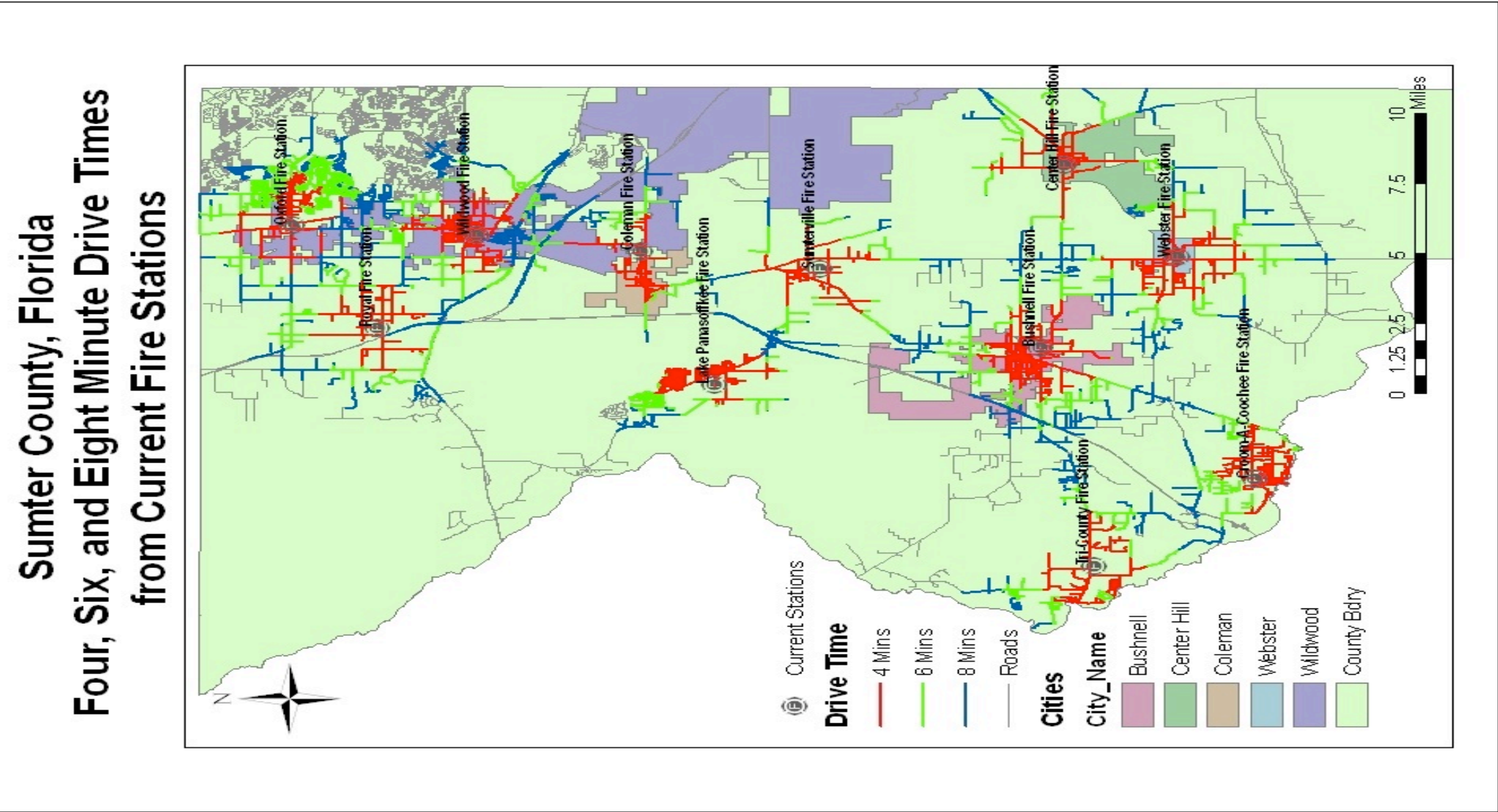
- Extended processing time from the SCSO Communication Center is negatively affecting SCFR response times. Data Pursuit CAD software used by the Communication Center is law enforcement based and lacks necessary components for accurate fire rescue dispatching, including alert time stamping and electronic paging of SCFR personnel.
- True processing time for SCFR is problematic. As noted above, Data Pursuit CAD Software appears weak for fire rescue dispatching, especially in the area of time stamping when SCFR units are actually alerted for a call for service. There are diverse opinions between SCFR and the SCSO Communication Center on this issue. Whereas processing time is one element in total response times that can be improved through process and technology priority should be given to addressing this question.
- The current SCSO Communication Center staffing structure where the single fire rescue telecommunicator is tasked as the overflow call-taker is questionable if alerting of SCFR for a call for service is delayed as a result of that responsibility.
- Although SCFR reflex times are not extreme for a combination fire rescue department; shorter reflex times should be observed at stations when staffed by career personnel. Reflex time of one-minute or less has dropped from a high of 35% to 28% between 2006 and 2008. Reflex time should improve with 12-hour career staffing at the three busiest fire stations.
- Discovering extended drive times in Sumter County is not a surprise. County fire stations that are more rural will understandably have longer drive time than those located in population clusters. Options to solely reduce drive time is limited to adding fire stations in areas with low demand for service or assign 'roaming' fire resources in different areas of the County based on probability a call for service will occur in that general area at that general time of day. At this point of SCFR development, neither option is practical. The best course of action, which is currently underway, is appropriate planning for future station locations by monitoring call for service data, including locations, response times, and county growth. This issue will be addressed further in the next section.

RECOMMENDATIONS:

Strong consideration should be given to conducting an external review of the SCSO Communication Center specific to fire rescue dispatching using the NFPA 1710 Standard. Review of the Data Pursuit CAD software for adequacies for fire rescue dispatching should be included in this study.

SCFR should monitor station reflex times, especially those staffed with career personnel to assure a one-minute compliance.

The next map shows current SCFR station locations and drive times to reach emergency incidents for four (4), six (6), and eight (8) minute thresholds:



As seen in the previous map, SCFR fire stations are placed largely in the center of each municipality with 8-minute response threshold extending beyond current population centers. There are exceptions to this statement notably western Bushnell and the southern and eastern sides of the City of Wildwood.

SCFR has created a future fire station location plan. Using the three-year call for service information, an analysis was performed on current fire stations locations and proposed fire stations to evaluate fire rescue drive time. The following table demonstrates significant improvement to percentage of calls reached within the 4 – 8 minute drive times.

36-Month Calls for Service – Current and Proposed Stations Drive Time Thresholds		
Current & Proposed Stations	Total Incidents	Percent of Total
Calls within 4 Mins	10,976	65%
Calls within 6 Mins	14,128	84%
Calls within 8 Mins	15,276	91%

The following points summarize key aspects relating to drive time between current (2008) station locations and current station locations with proposed additional locations.

- Implementing the SCFR Fire Station Location Plan will improve unit drive time within 4-minutes by 13%.
- Drive time of SCFR emergency vehicles of six-minutes or less improves 6% – to 84%.
- SCFR drive time of eight minutes improve 5% if new stations are constructed and one current station is relocated.

The Villages Public Safety Department’s 2007 Strategic Plan includes design and construction of Station #6 and Station #7 within the next five (5) years. Extremely

important to the County is the exact site(s) chosen by VPSD and timing for construction. As noted earlier, SCFR and VPSD benefit from an automatic aid agreement. Before any decision to construct a new SCFR station in the northeast section of the County, discussions between SCFR and VPSD should consider potential overlap of service areas and benefits from such.

To illustrate the potential economy of functional efficiency through department collaboration, the map that follows, shows 2.5 mile response radius around SCFR and VPSD current and proposed station locations and their overlap into each others primary response areas.